U.S. Application No.: 10/051,304
Inventors: David W. VOS et al.
Attorney Docket No.: 09454.0002-02000
Reply to Office Action dated February 3, 2005

AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows:

Replace the paragraph [0036] beginning on page 12, line 19, and ending on page 12, line 26, with the following paragraph:

--   The power output of prime power source 2 is controlled in operation by two primary variables, MAP and RPM. The power output and specific fuel consumption are characterized by testing and/or prediction as functions of MAP and RPM. The generator is characterized by maps of power coefficient and efficiency ~~versus advance ratio~~, which in turn are functions of RPM, density, and load. The optimization algorithm maximizes the output power efficiency of the combined power generation system. --

Replace the paragraph [0037] beginning on page 12, line 28, and ending on page 13, line 17, with the following paragraph:

--   Since the final output of the optimization algorithm is a set of RPM and MAP data versus environmental conditions and output power, these data are stored in the FADEC 30 in look-up table form and read directly or interpolated to obtain optimum conditions at any environmental condition and output power. In Fig. 5, a constant-output power contour is obtained for the commanded power output and the detected ambient air operating conditions. This contour is projected onto the RPM-MAP plane. For this example, the contour is represented by a series of points describing intersections with the RPM-MAP grid lines. In Fig. 6, the RPM-MAP contour pairs are mapped onto the output power efficiency curve. The output power contour is re-projected onto the [[thrust]] power efficiency surface, and the result of the operation

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is a discrete 3D curve. In Fig. 7, the maximum output power efficiency may be

constrained for safety and other operating conditions. For example, a safe-operating

envelope may be imposed on the projected output power efficiency curve, and the

maximum output power efficiency within the constraint is located to yield RPM/MAP

setpoints to control the engine and propeller. --